

January 20, 2017

Mr. Nigam Tripathi  
W-L Molding  
WPI, LLC  
16685 150<sup>th</sup> Ave.  
Spring Lake, Michigan 49456

*Re: Soil Sampling Activities, Potential Fill Area, W-L Molding, 8212 Shaver Road, Portage, Michigan.*

Dear Mr. Tripathi:

This correspondence serves to provide the results of soil sampling activities related to the concern with a potential fill area identified at the above referenced site. This work was completed by Envirologic under direction from the Kalamazoo County Brownfield Redevelopment Authority (KCBRA) and funded by the KCBRA's U.S. EPA Brownfield Assessment Grant for Hazardous Substances Contaminated Sites. Eligibility to utilize the U.S. EPA Assessment Grant was accepted on December 14, 2016.

## BACKGROUND

The property is located at 8212 Shaver Road in Portage, Michigan. The property has been occupied by W-L Molding, a plastic parts manufacturer, since approximately 1953. A Phase I Environmental Site Assessment (ESA) was completed by McDowell & Associates on April 9, 2015. Among the various Recognized Environmental Conditions noted in the Phase I ESA, McDowell & Associates identified soil disturbances visible in the 1955 through 1981 aerial photographs as an REC. This was identified as "REC 6" in the Phase I ESA report.

Subsequently, McDowell & Associates completed a Phase II ESA dated July 31, 2015. Six soil borings were placed within an open grassy area west of the former LaRos Equipment Company building. Initially, soil borings 14 and 15 were placed in this area. Soil borings 21, 22, 23, and 24 were placed at a later date to determine the extent of impact identified at the earlier soil boring locations. Other than soil boring 23, the borings were installed to a total depth of 10 feet below ground level (bgl). Soil boring 23 was installed to a depth of five feet bgl.

Soil boring 14 was placed at the west edge of the cleared area. A soil sample was collected from this boring at a depth of two to four feet bgl and analyzed for volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PNAs) and Michigan 10 metals. Soil boring 15 was placed in a central portion of the cleared area. A soil sample was collected from this boring at a depth of two to four feet bgl and analyzed for VOCs, PNAs, Michigan 10 metals, and polychlorinated biphenyls (PCBs). The soil sample from soil boring 15 contained 3,400 ppb PCBs, a concentration below the nonresidential direct contact criterion. There

were no PNAs or VOCs in the soil samples. Mercury was the only metal detected, but was present at levels less than the Generic Residential Cleanup Criteria (GRCC).

McDowell & Associates subsequently installed additional soil borings in the area to further characterize the apparent fill material. Soil borings 21, 22, 23, and 24 were installed and a soil sample was collected from each boring at a depth of two to four feet bgl. Each sample was analyzed for PCBs. PCBs were detected in each soil sample except for the sample from boring 21.

As part of the acquisition and redevelopment of the site and in order to protect employees from a potentially unacceptable exposure, W-L Molding committed to ensuring this area was restricted by installing a temporary fence. Envirologic's work was intended to provide data that defined an eastern edge to the fill material so that the placement of the fencing would be an effective barrier.

## **SCOPE OF WORK**

Envirologic prepared a Sampling and Analysis Plan (SAP) for project activities. The SAP was submitted to U.S. EPA and approved on December 29, 2017. Envirologic cleared utilities by contacting the one-call clearance service MISSDIG. A Health and Safety Plan was prepared for project activities and also submitted to U.S. EPA.

Envirologic staff mobilized to the site on January 5, 2017. Nigam Tripathi identified the presumed fill material area to Envirologic. Currently the area is an open grassy field bordered by young trees.

Envirologic placed two soil borings on the east side of the cleared area (SB-106 and SB-107). The borings were advanced to a depth of four feet. There was no evidence of staining or fill materials in the soil borings and very low PID readings (2.3 and 2.4 ppm). A soil sample was collected from each boring at a depth of 3.0 feet bgl utilizing a stainless steel soil sampling probe. The soil sampling equipment was decontaminated between each boring. This sampling depth was selected to match the approximate depth of the previous samples collected in the area. The two soil samples were submitted to Fibertec Environmental Services under chain of custody procedures for analysis of PCBs. The results of the laboratory analyses indicated that there were no PCBs detected in either sample.

Refer to Appendix C for a copy of the laboratory analytical report.

Mr. Nigam Tripathi  
January 20, 2017  
Page 3 of 3

## **CONCLUSIONS**

The data demonstrates that the impacted soil identified by McDowell & Associates appears to be confined to the central cleared area west of the former LaRos Equipment building. No PCBs were detected above non-residential cleanup criteria. Nonetheless if W-L Molding wishes to restrict the area as a precautionary measure, a linear barrier along the east edge of the cleared area as defined by the two soil borings would be appropriate.

If you have any questions regarding this matter, please do not hesitate to contact our office at (269) 342-1100.

Sincerely,

**ENVIROLOGIC TECHNOLOGIES, INC.**



David A. Stegink  
Senior Environmental Scientist

DAS:rel

Attachments

cc: Rachael Grover, Kalamazoo County Brownfield Redevelopment Authority  
MDEQ Kalamazoo District Office  
U.S. EPA Region 5

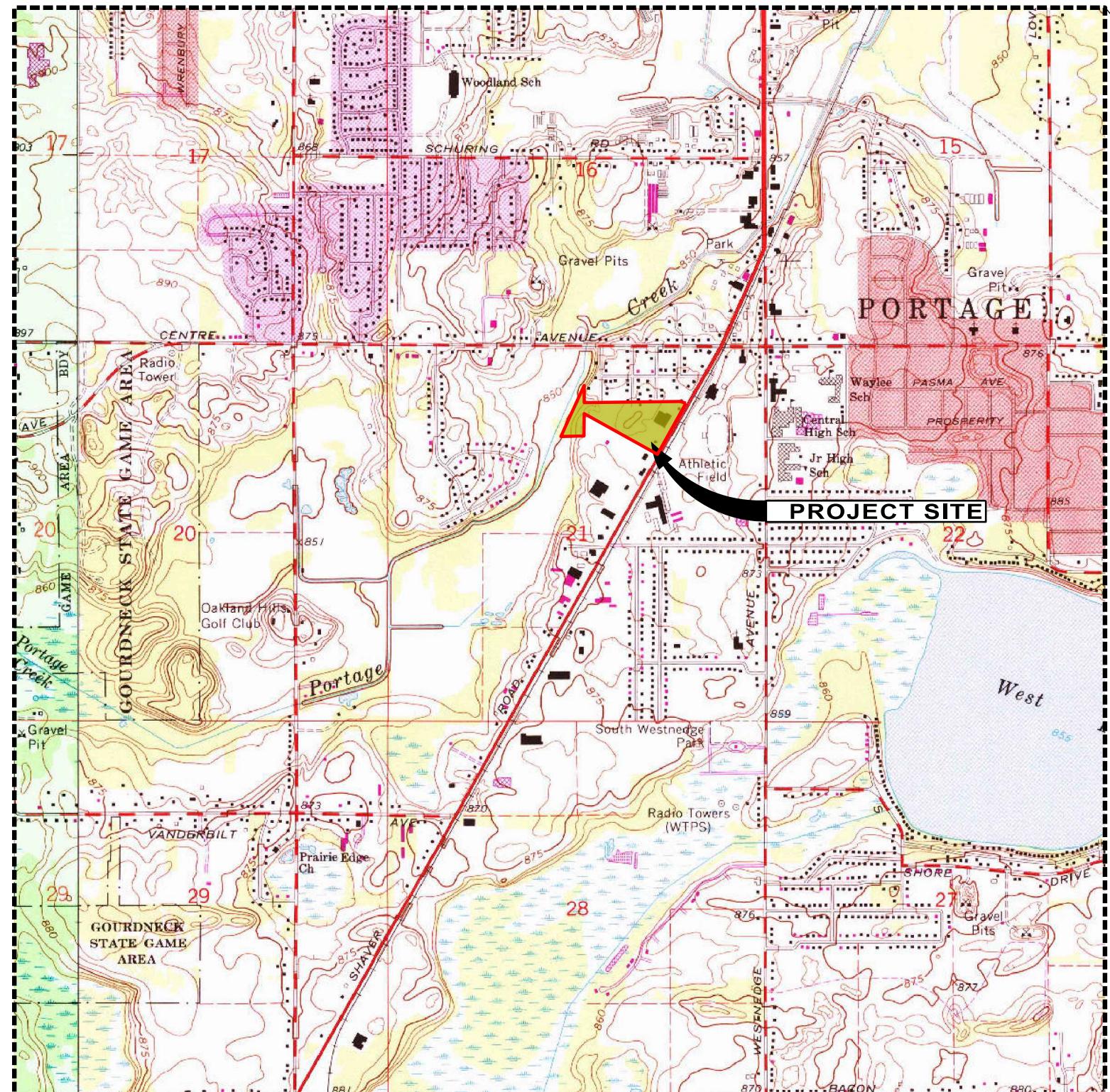


**ATTACHMENT A**

**FIGURES**

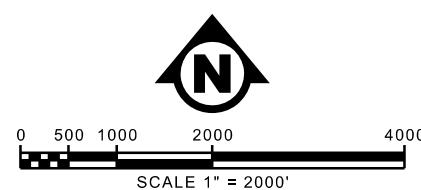
*Location Map  
Site Plan*



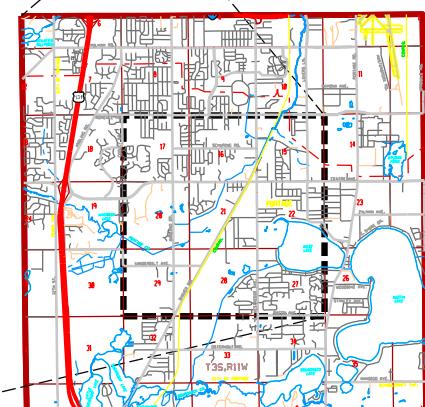


SOURCE: PORTAGE, MICHIGAN USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE MAPS  
MAPTECH® U.S. TERRAIN SERIES™ ©MAPTECH®, INC. 606-433-8500

000000 AAAA File: AA.dgn Model: Location Map



**envirologic**  
environmental consulting + services  
2960 INTERSTATE PARKWAY  
KALAMAZOO, MICHIGAN 49048  
PH: (269) 342-1100 FAX: (269) 342-4945



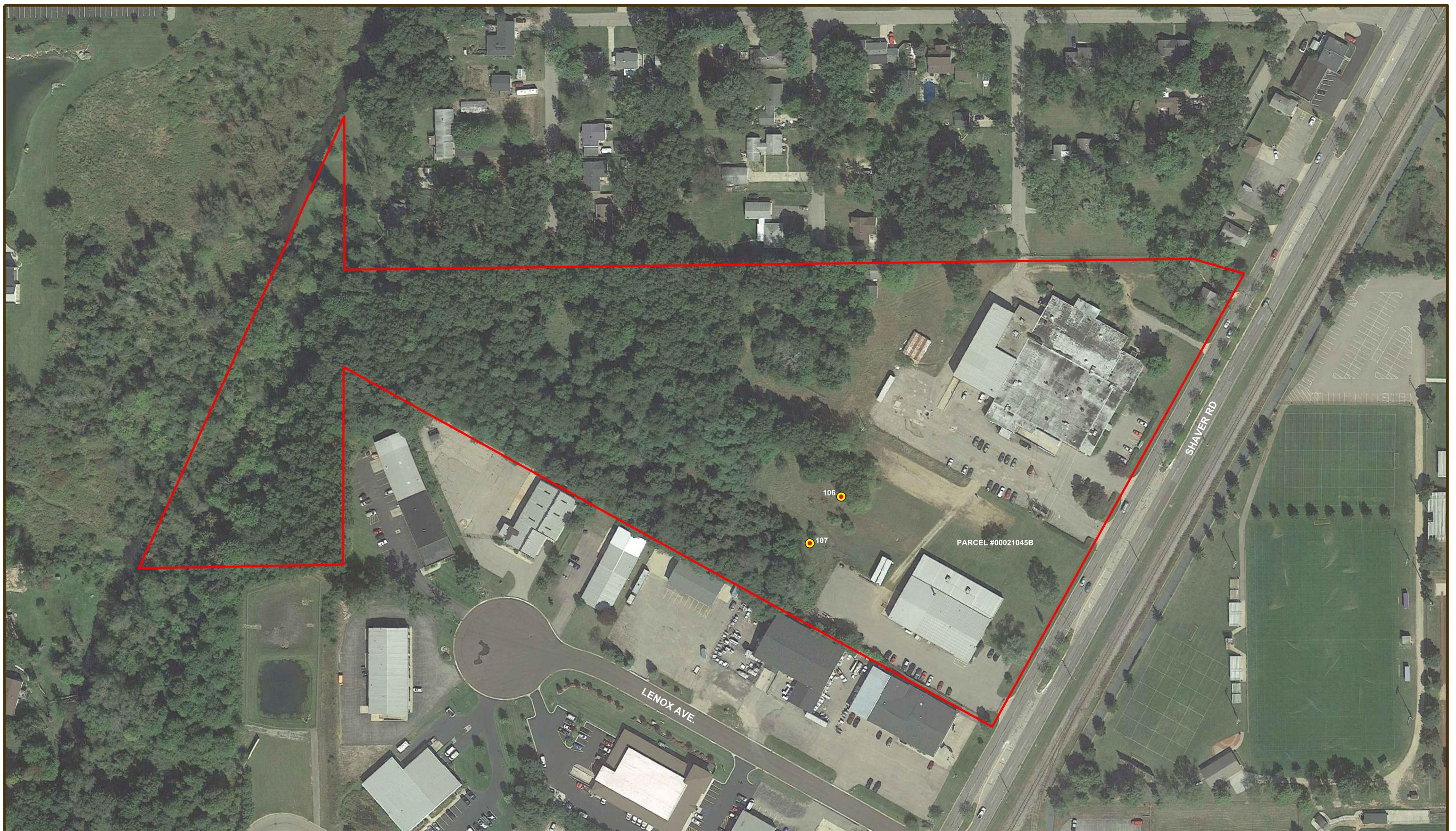
T 3 S. R. 11 W.  
KALAMAZOO COUNTY  
PORTAGE, MICHIGAN

**W-L MOLDING**  
8212 SHAVER RD  
PORTAGE, MI 49024  
**LOCATION MAP**

PROJECT NO.  
160362

FIGURE No.

**1**

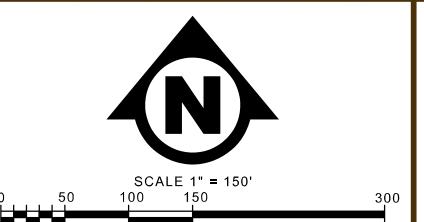


NOTE:  
THIS IS NOT A PROPERTY BOUNDARY SURVEY. PROPERTY BOUNDARIES SHOWN ON THIS MAP  
ARE BASED ON AVAILABLE FURNISHED INFORMATION AND ARE APPROXIMATE ONLY AND  
SHOULD NOT BE USED TO ESTABLISH PROPERTY BOUNDARY LOCATION IN THE FIELD.

000000 AAAA File: Model

#### LEGEND

● HAND AUGER/SOIL BORING LOCATION



**W-L MOLDING**  
8212 SHAVER RD  
PORTAGE, MI 49024

**SITE PLAN**

PROJECT NO.  
160362  
FIGURE No.

2

**ATTACHMENT B**

**LABORATORY ANALYTICAL REPORT**



Friday, January 13, 2017

Fibertec Project Number: 76840  
Project Identification: KCBRA (160362) /160362  
Submittal Date: 01/06/2017

Mr. David Stegink  
Envirologic Technologies, Inc.  
2960 Interstate Parkway  
Kalamazoo, MI 49048

Dear Mr. Stegink,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,



By Emily Kennedy at 4:14 PM, Jan 13, 2017

For Daryl P. Strandbergh  
Laboratory Director

Enclosures

1914 Holloway Drive  
11766 E. Grand River  
8660 S. Mackinaw Trail

Holt, MI 48842  
Brighton, MI 48116  
Cadillac, MI 49601

T: (517) 699-0345  
T: (810) 220-3300  
T: (231) 775-8368

F: (517) 699-0388  
F: (810) 220-3311  
F: (231) 775-8584

|   |                                       |                     |                    |                   |                 |
|---|---------------------------------------|---------------------|--------------------|-------------------|-----------------|
| Client Identification:  | <b>Envirologic Technologies, Inc.</b> | Sample Description: | <b>SB-102 @ 1'</b> | Chain of Custody: | <b>135185</b>   |
| Client Project Name:  | <b>KCBRA (160362)</b>                 | Sample No:          | <b>1</b>           | Collect Date:     | <b>01/05/17</b> |
| Client Project No:  | <b>160362</b>                         | Sample Matrix:      | <b>Soil/Solid</b>  | Collect Time:     | <b>11:30</b>    |
| <b>Sample Comments:</b> <b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>           |                                       |                     |                    |                   |                 |
| Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis. |                                       |                     |                    |                   |                 |

| <b>Water (Moisture) Content Dried at 105 ± 5°C</b> |        |   |       |                 |          | <b>Aliquot ID:</b> 76840-001    | <b>Matrix: Soil/Solid</b> |                 |          |       |
|--|--------|---|-------|-----------------|----------|---------------------------------|---------------------------|-----------------|----------|-------|
| <b>Method: ASTM D2216-10</b>                       |        |   |       |                 |          | <b>Description: SB-102 @ 1'</b> |                           |                 |          |       |
| Parameter(s)                                       | Result | Q | Units | Reporting Limit | Dilution | <b>Preparation</b>              |                           | <b>Analysis</b> |          |       |
|  |        |   |       |                 |          | P. Date                         | P. Batch                  | A. Date         | A. Batch | Init. |
| † 1. Percent Moisture (Water Content)              | 9      | % |       | 1               | 1.0      | 01/09/17                        | MC170109                  | 01/10/17        | MC170109 | BMG   |

| <b>Polynuclear Aromatic Hydrocarbons (PNAs)</b> |        |       |       |                 |          | <b>Aliquot ID:</b> 76840-001    | <b>Matrix: Soil/Solid</b> |                 |          |       |
|---|--------|-------|-------|-----------------|----------|---------------------------------|---------------------------|-----------------|----------|-------|
| <b>Method: EPA 3546/EPA 8270C</b>               |        |       |       |                 |          | <b>Description: SB-102 @ 1'</b> |                           |                 |          |       |
| Parameter(s)                                    | Result | Q     | Units | Reporting Limit | Dilution | <b>Preparation</b>              |                           | <b>Analysis</b> |          |       |
|   |        |       |       |                 |          | P. Date                         | P. Batch                  | A. Date         | A. Batch | Init. |
| 1. Acenaphthene                                 | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 2. Acenaphthylene                               | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 3. Anthracene                                   | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 4. Benzo(a)anthracene                           | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 5. Benzo(a)pyrene                               | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 6. Benzo(b)fluoranthene                         | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 7. Benzo(ghi)perylene                           | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 8. Benzo(k)fluoranthene                         | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 9. Chrysene                                     | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 10. Dibenzo(a,h)anthracene                      | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 11. Fluoranthene                                | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 12. Fluorene                                    | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 13. Indeno(1,2,3-cd)pyrene                      | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 14. 2-Methylnaphthalene                         | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 15. Naphthalene                                 | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 16. Phenanthrene                                | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |
| 17. Pyrene                                      | U      | µg/kg |       | 330             | 1.0      | 01/09/17                        | PS17A09B                  | 01/09/17        | SG17A09A | TKT   |

|   |                                       |                     |                    |                   |                 |
|---|---------------------------------------|---------------------|--------------------|-------------------|-----------------|
| Client Identification:  | <b>Envirologic Technologies, Inc.</b> | Sample Description: | <b>SB-103 @ 1'</b> | Chain of Custody: | <b>135185</b>   |
| Client Project Name:  | <b>KCBRA (160362)</b>                 | Sample No:          | <b>2</b>           | Collect Date:     | <b>01/05/17</b> |
| Client Project No:  | <b>160362</b>                         | Sample Matrix:      | <b>Soil/Solid</b>  | Collect Time:     | <b>11:35</b>    |
| Sample Comments: <b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>                  |                                       |                     |                    |                   |                 |
| Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis. |                                       |                     |                    |                   |                 |

| <b>Water (Moisture) Content Dried at 105 ± 5°C</b> |          |   |       |                 |          | <b>Aliquot ID: 76840-002</b>    | <b>Matrix: Soil/Solid</b> |                 |          |       |
|--|----------|---|-------|-----------------|----------|---------------------------------|---------------------------|-----------------|----------|-------|
| <b>Method: ASTM D2216-10</b>                       |          |   |       |                 |          | <b>Description: SB-103 @ 1'</b> |                           |                 |          |       |
| Parameter(s)                                       | Result   | Q | Units | Reporting Limit | Dilution | <b>Preparation</b>              |                           | <b>Analysis</b> |          |       |
|  |          |   |       |                 |          | P. Date                         | P. Batch                  | A. Date         | A. Batch | Init. |
| † 1. Percent Moisture (Water Content)              | <b>9</b> |   | %     | 1               | 1.0      | 01/09/17                        | MC170109                  | 01/10/17        | MC170109 | BMG   |

| <b>Polynuclear Aromatic Hydrocarbons (PNAs)</b> |            |    |       |                 |          | <b>Aliquot ID: 76840-002</b>    | <b>Matrix: Soil/Solid</b> |                 |          |       |
|---|------------|----|-------|-----------------|----------|---------------------------------|---------------------------|-----------------|----------|-------|
| <b>Method: EPA 3546/EPA 8270C</b>               |            |    |       |                 |          | <b>Description: SB-103 @ 1'</b> |                           |                 |          |       |
| Parameter(s)                                    | Result     | Q  | Units | Reporting Limit | Dilution | <b>Preparation</b>              |                           | <b>Analysis</b> |          |       |
|   |            |    |       |                 |          | P. Date                         | P. Batch                  | A. Date         | A. Batch | Init. |
| 1. Acenaphthene (SIM)                           | U          | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 2. Acenaphthylene (SIM)                         | U          | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 3. Anthracene (SIM)                             | U          | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 4. Benzo(a)anthracene (SIM)                     | <b>370</b> | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 5. Benzo(a)pyrene (SIM)                         | U          | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 6. Benzo(b)fluoranthene (SIM)                   | <b>420</b> | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 7. Benzo(ghi)perylene (SIM)                     | U          | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 8. Benzo(k)fluoranthene (SIM)                   | U          | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 9. Chrysene (SIM)                               | U          | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 10. Dibenzo(a,h)anthracene (SIM)                | U          | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 11. Fluoranthene (SIM)                          | <b>800</b> | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 12. Fluorene (SIM)                              | U          | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 13. Indeno(1,2,3-cd)pyrene (SIM)                | U          | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 14. 2-Methylnaphthalene (SIM)                   | U          | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 15. Naphthalene (SIM)                           | U          | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 16. Phenanthrene (SIM)                          | <b>390</b> | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |
| 17. Pyrene (SIM)                                | <b>670</b> | G- | µg/kg | 330             | 10       | 01/09/17                        | PS17A09B                  | 01/10/17        | S617A10A | RDK   |

|   |                                       |                     |                    |                   |                 |
|---|---------------------------------------|---------------------|--------------------|-------------------|-----------------|
| Client Identification:  | <b>Envirologic Technologies, Inc.</b> | Sample Description: | <b>SB-104 @ 1'</b> | Chain of Custody: | <b>135185</b>   |
| Client Project Name:  | <b>KCBRA (160362)</b>                 | Sample No:          | <b>3</b>           | Collect Date:     | <b>01/05/17</b> |
| Client Project No:  | <b>160362</b>                         | Sample Matrix:      | <b>Soil/Solid</b>  | Collect Time:     | <b>11:55</b>    |
| <b>Sample Comments:</b> <b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>           |                                       |                     |                    |                   |                 |
| Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis. |                                       |                     |                    |                   |                 |

|  |                              |                           |       |                 |          |             |          |          |          |       |
|--|------------------------------|---------------------------|-------|-----------------|----------|-------------|----------|----------|----------|-------|
| <b>Water (Moisture) Content Dried at 105 ± 5°C</b> | <b>Aliquot ID:</b> 76840-003 | <b>Matrix:</b> Soil/Solid |       |                 |          |             |          |          |          |       |
| <b>Method:</b> ASTM D2216-10                       |                              |                           |       |                 |          |             |          |          |          |       |
| Parameter(s)                                       | Result                       | Q                         | Units | Reporting Limit | Dilution | Preparation | Analysis | A. Date  | A. Batch | Init. |
| † 1. Percent Moisture (Water Content)              | 7                            |                           | %     | 1               | 1.0      | 01/09/17    | MC170109 | 01/10/17 | MC170109 | BMG   |

|   |                              |                           |       |                 |          |             |          |          |          |       |
|---|------------------------------|---------------------------|-------|-----------------|----------|-------------|----------|----------|----------|-------|
| <b>Polychlorinated Biphenyls (PCBs)</b> | <b>Aliquot ID:</b> 76840-003 | <b>Matrix:</b> Soil/Solid |       |                 |          |             |          |          |          |       |
| <b>Method:</b> EPA 3546/EPA 8082A       |                              |                           |       |                 |          |             |          |          |          |       |
| Parameter(s)                            | Result                       | Q                         | Units | Reporting Limit | Dilution | Preparation | Analysis | A. Date  | A. Batch | Init. |
| 1. Aroclor-1016                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| 2. Aroclor-1221                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| 3. Aroclor-1232                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| 4. Aroclor-1242                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| 5. Aroclor-1248                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| 6. Aroclor-1254                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| 7. Aroclor-1260                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| † 8. Aroclor-1262                       | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| † 9. Aroclor-1268                       | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |

|   |  |   |   |
|---|--|---|---|
| 1914 Holloway Drive<br>11766 E. Grand River<br>8660 S. Mackinaw Trail | Holt, MI 48842<br>Brighton, MI 48116<br>Cadillac, MI 49601 | T: (517) 699-0345<br>T: (810) 220-3300<br>T: (231) 775-8368 | F: (517) 699-0388<br>F: (810) 220-3311<br>F: (231) 775-8584 |
|---|--|---|---|

|   |                                       |                     |                    |                   |                 |
|---|---------------------------------------|---------------------|--------------------|-------------------|-----------------|
| Client Identification:  | <b>Envirologic Technologies, Inc.</b> | Sample Description: | <b>SB-105 @ 1'</b> | Chain of Custody: | <b>135185</b>   |
| Client Project Name:  | <b>KCBRA (160362)</b>                 | Sample No:          | <b>4</b>           | Collect Date:     | <b>01/05/17</b> |
| Client Project No:  | <b>160362</b>                         | Sample Matrix:      | <b>Soil/Solid</b>  | Collect Time:     | <b>12:05</b>    |
| <b>Sample Comments:</b> <b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>           |                                       |                     |                    |                   |                 |
| Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis. |                                       |                     |                    |                   |                 |

|  |                              |                           |       |                 |          |             |          |          |          |       |
|--|------------------------------|---------------------------|-------|-----------------|----------|-------------|----------|----------|----------|-------|
| <b>Water (Moisture) Content Dried at 105 ± 5°C</b> | <b>Aliquot ID:</b> 76840-004 | <b>Matrix:</b> Soil/Solid |       |                 |          |             |          |          |          |       |
| <b>Method:</b> ASTM D2216-10                       |                              |                           |       |                 |          |             |          |          |          |       |
| Parameter(s)                                       | Result                       | Q                         | Units | Reporting Limit | Dilution | Preparation | Analysis | A. Date  | A. Batch | Init. |
| † 1. Percent Moisture (Water Content)              | 8                            |                           | %     | 1               | 1.0      | 01/09/17    | MC170109 | 01/10/17 | MC170109 | BMG   |

|   |                              |                           |       |                 |          |             |          |          |          |       |
|---|------------------------------|---------------------------|-------|-----------------|----------|-------------|----------|----------|----------|-------|
| <b>Polychlorinated Biphenyls (PCBs)</b> | <b>Aliquot ID:</b> 76840-004 | <b>Matrix:</b> Soil/Solid |       |                 |          |             |          |          |          |       |
| <b>Method:</b> EPA 3546/EPA 8082A       |                              |                           |       |                 |          |             |          |          |          |       |
| Parameter(s)                            | Result                       | Q                         | Units | Reporting Limit | Dilution | Preparation | Analysis | A. Date  | A. Batch | Init. |
| 1. Aroclor-1016                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| 2. Aroclor-1221                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| 3. Aroclor-1232                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| 4. Aroclor-1242                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| 5. Aroclor-1248                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| 6. Aroclor-1254                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| 7. Aroclor-1260                         | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| † 8. Aroclor-1262                       | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |
| † 9. Aroclor-1268                       | U                            |                           | µg/kg | 100             | 5.0      | 01/10/17    | PS17A10B | 01/10/17 | SA17A10A | TKT   |

|   |  |   |   |
|---|--|---|---|
| 1914 Holloway Drive<br>11766 E. Grand River<br>8660 S. Mackinaw Trail | Holt, MI 48842<br>Brighton, MI 48116<br>Cadillac, MI 49601 | T: (517) 699-0345<br>T: (810) 220-3300<br>T: (231) 775-8368 | F: (517) 699-0388<br>F: (810) 220-3311<br>F: (231) 775-8584 |
|---|--|---|---|

|   |                                       |                     |                    |                   |                 |
|---|---------------------------------------|---------------------|--------------------|-------------------|-----------------|
| Client Identification:  | <b>Envirologic Technologies, Inc.</b> | Sample Description: | <b>SB-106 @ 3'</b> | Chain of Custody: | <b>135185</b>   |
| Client Project Name:  | <b>KCBRA (160362)</b>                 | Sample No:          | <b>5</b>           | Collect Date:     | <b>01/05/17</b> |
| Client Project No:  | <b>160362</b>                         | Sample Matrix:      | <b>Soil/Solid</b>  | Collect Time:     | <b>12:25</b>    |
| <b>Sample Comments:</b> <b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>           |                                       |                     |                    |                   |                 |
| Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis. |                                       |                     |                    |                   |                 |

| <b>Water (Moisture) Content Dried at 105 ± 5°C</b> |        |   |       |                 |          | <b>Aliquot ID:</b> 76840-005    | <b>Matrix: Soil/Solid</b> |                 |          |       |
|--|--------|---|-------|-----------------|----------|---------------------------------|---------------------------|-----------------|----------|-------|
| <b>Method:</b> ASTM D2216-10                       |        |   |       |                 |          | <b>Description:</b> SB-106 @ 3' |                           |                 |          |       |
| Parameter(s)                                       | Result | Q | Units | Reporting Limit | Dilution | <b>Preparation</b>              |                           | <b>Analysis</b> |          |       |
|  |        |   |       |                 |          | P. Date                         | P. Batch                  | A. Date         | A. Batch | Init. |
| † 1. Percent Moisture (Water Content)              | 13     |   | %     | 1               | 1.0      | 01/09/17                        | MC170109                  | 01/10/17        | MC170109 | BMG   |

| <b>Polychlorinated Biphenyls (PCBs)</b> |        |   |       |                 |          | <b>Aliquot ID:</b> 76840-005    | <b>Matrix: Soil/Solid</b> |                 |          |       |
|---|--------|---|-------|-----------------|----------|---------------------------------|---------------------------|-----------------|----------|-------|
| <b>Method:</b> EPA 3546/EPA 8082A       |        |   |       |                 |          | <b>Description:</b> SB-106 @ 3' |                           |                 |          |       |
| Parameter(s)                            | Result | Q | Units | Reporting Limit | Dilution | <b>Preparation</b>              |                           | <b>Analysis</b> |          |       |
|   |        |   |       |                 |          | P. Date                         | P. Batch                  | A. Date         | A. Batch | Init. |
| 1. Aroclor-1016                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 2. Aroclor-1221                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 3. Aroclor-1232                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 4. Aroclor-1242                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 5. Aroclor-1248                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 6. Aroclor-1254                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 7. Aroclor-1260                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| † 8. Aroclor-1262                       | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| † 9. Aroclor-1268                       | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |

|   |                                       |                     |                       |                   |                 |
|---|---------------------------------------|---------------------|-----------------------|-------------------|-----------------|
| Client Identification:  | <b>Envirologic Technologies, Inc.</b> | Sample Description: | <b>SB-106 @ 3' MS</b> | Chain of Custody: | <b>135185</b>   |
| Client Project Name:  | <b>KCBRA (160362)</b>                 | Sample No:          | <b>6</b>              | Collect Date:     | <b>01/05/17</b> |
| Client Project No:  | <b>160362</b>                         | Sample Matrix:      | <b>Soil/Solid</b>     | Collect Time:     | <b>12:25</b>    |
| <b>Sample Comments:</b> <b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>           |                                       |                     |                       |                   |                 |
| Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis. |                                       |                     |                       |                   |                 |

| <b>Water (Moisture) Content Dried at 105 ± 5°C</b> |        |   |       |                 |          | <b>Aliquot ID:</b> 76840-006       | <b>Matrix: Soil/Solid</b> |                 |          |       |
|--|--------|---|-------|-----------------|----------|------------------------------------|---------------------------|-----------------|----------|-------|
| <b>Method:</b> ASTM D2216-10                       |        |   |       |                 |          | <b>Description:</b> SB-106 @ 3' MS |                           |                 |          |       |
| Parameter(s)                                       | Result | Q | Units | Reporting Limit | Dilution | <b>Preparation</b>                 |                           | <b>Analysis</b> |          |       |
|  |        |   |       |                 |          | P. Date                            | P. Batch                  | A. Date         | A. Batch | Init. |
| † 1. Percent Moisture (Water Content)              | 12     |   | %     | 1               | 1.0      | 01/09/17                           | MC170109                  | 01/10/17        | MC170109 | BMG   |

| <b>Polychlorinated Biphenyls (PCBs)</b> |        |   |       |                 |          | <b>Aliquot ID:</b> 76840-006       | <b>Matrix: Soil/Solid</b> |                 |          |       |
|---|--------|---|-------|-----------------|----------|------------------------------------|---------------------------|-----------------|----------|-------|
| <b>Method:</b> EPA 3546/EPA 8082A       |        |   |       |                 |          | <b>Description:</b> SB-106 @ 3' MS |                           |                 |          |       |
| Parameter(s)                            | Result | Q | Units | Reporting Limit | Dilution | <b>Preparation</b>                 |                           | <b>Analysis</b> |          |       |
|   |        |   |       |                 |          | P. Date                            | P. Batch                  | A. Date         | A. Batch | Init. |
| 1. Aroclor-1016                         | 630    |   | µg/kg | 100             | 5.0      | 01/10/17                           | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 2. Aroclor-1221                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                           | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 3. Aroclor-1232                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                           | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 4. Aroclor-1242                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                           | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 5. Aroclor-1248                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                           | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 6. Aroclor-1254                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                           | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 7. Aroclor-1260                         | 810    |   | µg/kg | 100             | 5.0      | 01/10/17                           | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| † 8. Aroclor-1262                       | U      |   | µg/kg | 100             | 5.0      | 01/10/17                           | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| † 9. Aroclor-1268                       | U      |   | µg/kg | 100             | 5.0      | 01/10/17                           | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |

|   |                                       |                     |                        |                   |                 |
|---|---------------------------------------|---------------------|------------------------|-------------------|-----------------|
| Client Identification:  | <b>Envirologic Technologies, Inc.</b> | Sample Description: | <b>SB-106 @ 3' MSD</b> | Chain of Custody: | <b>135185</b>   |
| Client Project Name:  | <b>KCBRA (160362)</b>                 | Sample No:          | <b>7</b>               | Collect Date:     | <b>01/05/17</b> |
| Client Project No:  | <b>160362</b>                         | Sample Matrix:      | <b>Soil/Solid</b>      | Collect Time:     | <b>12:25</b>    |
| <b>Sample Comments:</b> <b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>           |                                       |                     |                        |                   |                 |
| Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis. |                                       |                     |                        |                   |                 |

| <b>Water (Moisture) Content Dried at 105 ± 5°C</b> |        |   |       |                 |          | <b>Aliquot ID:</b> 76840-007        | <b>Matrix: Soil/Solid</b> |                 |          |       |
|--|--------|---|-------|-----------------|----------|-------------------------------------|---------------------------|-----------------|----------|-------|
| <b>Method:</b> ASTM D2216-10                       |        |   |       |                 |          | <b>Description:</b> SB-106 @ 3' MSD |                           |                 |          |       |
| Parameter(s)                                       | Result | Q | Units | Reporting Limit | Dilution | <b>Preparation</b>                  |                           | <b>Analysis</b> |          |       |
|  |        |   |       |                 |          | P. Date                             | P. Batch                  | A. Date         | A. Batch | Init. |
| † 1. Percent Moisture (Water Content)              | 13     |   | %     | 1               | 1.0      | 01/09/17                            | MC170109                  | 01/10/17        | MC170109 | BMG   |

| <b>Polychlorinated Biphenyls (PCBs)</b> |        |   |       |                 |          | <b>Aliquot ID:</b> 76840-007        | <b>Matrix: Soil/Solid</b> |                 |          |       |
|---|--------|---|-------|-----------------|----------|-------------------------------------|---------------------------|-----------------|----------|-------|
| <b>Method:</b> EPA 3546/EPA 8082A       |        |   |       |                 |          | <b>Description:</b> SB-106 @ 3' MSD |                           |                 |          |       |
| Parameter(s)                            | Result | Q | Units | Reporting Limit | Dilution | <b>Preparation</b>                  |                           | <b>Analysis</b> |          |       |
|   |        |   |       |                 |          | P. Date                             | P. Batch                  | A. Date         | A. Batch | Init. |
| 1. Aroclor-1016                         | 590    |   | µg/kg | 100             | 5.0      | 01/10/17                            | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 2. Aroclor-1221                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                            | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 3. Aroclor-1232                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                            | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 4. Aroclor-1242                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                            | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 5. Aroclor-1248                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                            | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 6. Aroclor-1254                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                            | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 7. Aroclor-1260                         | 680    |   | µg/kg | 100             | 5.0      | 01/10/17                            | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| † 8. Aroclor-1262                       | U      |   | µg/kg | 100             | 5.0      | 01/10/17                            | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| † 9. Aroclor-1268                       | U      |   | µg/kg | 100             | 5.0      | 01/10/17                            | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |

|   |                                       |                     |                    |                   |                 |
|---|---------------------------------------|---------------------|--------------------|-------------------|-----------------|
| Client Identification:  | <b>Envirologic Technologies, Inc.</b> | Sample Description: | <b>SB-107 @ 3'</b> | Chain of Custody: | <b>135185</b>   |
| Client Project Name:  | <b>KCBRA (160362)</b>                 | Sample No:          | <b>8</b>           | Collect Date:     | <b>01/05/17</b> |
| Client Project No:  | <b>160362</b>                         | Sample Matrix:      | <b>Soil/Solid</b>  | Collect Time:     | <b>12:40</b>    |
| <b>Sample Comments:</b> <b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>           |                                       |                     |                    |                   |                 |
| Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis. |                                       |                     |                    |                   |                 |

| <b>Water (Moisture) Content Dried at 105 ± 5°C</b> |        |   |       |                 |          | <b>Aliquot ID:</b> 76840-008    | <b>Matrix: Soil/Solid</b> |                 |          |       |
|--|--------|---|-------|-----------------|----------|---------------------------------|---------------------------|-----------------|----------|-------|
| <b>Method:</b> ASTM D2216-10                       |        |   |       |                 |          | <b>Description:</b> SB-107 @ 3' |                           |                 |          |       |
| Parameter(s)                                       | Result | Q | Units | Reporting Limit | Dilution | <b>Preparation</b>              |                           | <b>Analysis</b> |          |       |
|  |        |   |       |                 |          | P. Date                         | P. Batch                  | A. Date         | A. Batch | Init. |
| † 1. Percent Moisture (Water Content)              | 10     |   | %     | 1               | 1.0      | 01/09/17                        | MC170109                  | 01/10/17        | MC170109 | BMG   |

| <b>Polychlorinated Biphenyls (PCBs)</b> |        |   |       |                 |          | <b>Aliquot ID:</b> 76840-008    | <b>Matrix: Soil/Solid</b> |                 |          |       |
|---|--------|---|-------|-----------------|----------|---------------------------------|---------------------------|-----------------|----------|-------|
| <b>Method:</b> EPA 3546/EPA 8082A       |        |   |       |                 |          | <b>Description:</b> SB-107 @ 3' |                           |                 |          |       |
| Parameter(s)                            | Result | Q | Units | Reporting Limit | Dilution | <b>Preparation</b>              |                           | <b>Analysis</b> |          |       |
|   |        |   |       |                 |          | P. Date                         | P. Batch                  | A. Date         | A. Batch | Init. |
| 1. Aroclor-1016                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 2. Aroclor-1221                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 3. Aroclor-1232                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 4. Aroclor-1242                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 5. Aroclor-1248                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 6. Aroclor-1254                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| 7. Aroclor-1260                         | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| † 8. Aroclor-1262                       | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |
| † 9. Aroclor-1268                       | U      |   | µg/kg | 100             | 5.0      | 01/10/17                        | PS17A10B                  | 01/10/17        | SA17A10A | TKT   |

|   |                                       |                     |                   |                   |                 |
|---|---------------------------------------|---------------------|-------------------|-------------------|-----------------|
| Client Identification:  | <b>Envirologic Technologies, Inc.</b> | Sample Description: | <b>M-2S</b>       | Chain of Custody: | <b>135185</b>   |
| Client Project Name:  | <b>KCBRA (160362)</b>                 | Sample No:          | <b>9</b>          | Collect Date:     | <b>01/05/17</b> |
| Client Project No:  | <b>160362</b>                         | Sample Matrix:      | <b>Soil/Solid</b> | Collect Time:     | <b>NA</b>       |
| <b>Sample Comments:</b> <b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>           |                                       |                     |                   |                   |                 |
| Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis. |                                       |                     |                   |                   |                 |

| <b>Water (Moisture) Content Dried at 105 ± 5°C</b> |               |          |              |                        |                 | <b>Aliquot ID:</b> 76840-009 | <b>Matrix: Soil/Solid</b> |                 |          |     |
|--|---------------|----------|--------------|------------------------|-----------------|------------------------------|---------------------------|-----------------|----------|-----|
| <b>Method:</b> ASTM D2216-10                       |               |          |              |                        |                 | <b>Description:</b> M-2S     |                           |                 |          |     |
| <b>Parameter(s)</b>                                | <b>Result</b> | <b>Q</b> | <b>Units</b> | <b>Reporting Limit</b> | <b>Dilution</b> | <b>Preparation</b>           |                           | <b>Analysis</b> |          |     |
| † 1. Percent Moisture (Water Content)              | 9             |          | %            | 1                      | 1.0             | 01/09/17                     | MC170109                  | 01/10/17        | MC170109 | BMG |

| <b>Polychlorinated Biphenyls (PCBs)</b> |               |          |              |                        |                 | <b>Aliquot ID:</b> 76840-009 | <b>Matrix: Soil/Solid</b> |                 |          |     |
|---|---------------|----------|--------------|------------------------|-----------------|------------------------------|---------------------------|-----------------|----------|-----|
| <b>Method:</b> EPA 3546/EPA 8082A       |               |          |              |                        |                 | <b>Description:</b> M-2S     |                           |                 |          |     |
| <b>Parameter(s)</b>                     | <b>Result</b> | <b>Q</b> | <b>Units</b> | <b>Reporting Limit</b> | <b>Dilution</b> | <b>Preparation</b>           |                           | <b>Analysis</b> |          |     |
| 1. Aroclor-1016                         | U             |          | µg/kg        | 100                    | 5.0             | 01/10/17                     | PS17A10B                  | 01/10/17        | SA17A10A | TKT |
| 2. Aroclor-1221                         | U             |          | µg/kg        | 100                    | 5.0             | 01/10/17                     | PS17A10B                  | 01/10/17        | SA17A10A | TKT |
| 3. Aroclor-1232                         | U             |          | µg/kg        | 100                    | 5.0             | 01/10/17                     | PS17A10B                  | 01/10/17        | SA17A10A | TKT |
| 4. Aroclor-1242                         | U             |          | µg/kg        | 100                    | 5.0             | 01/10/17                     | PS17A10B                  | 01/10/17        | SA17A10A | TKT |
| 5. Aroclor-1248                         | U             |          | µg/kg        | 100                    | 5.0             | 01/10/17                     | PS17A10B                  | 01/10/17        | SA17A10A | TKT |
| 6. Aroclor-1254                         | U             |          | µg/kg        | 100                    | 5.0             | 01/10/17                     | PS17A10B                  | 01/10/17        | SA17A10A | TKT |
| 7. Aroclor-1260                         | U             |          | µg/kg        | 100                    | 5.0             | 01/10/17                     | PS17A10B                  | 01/10/17        | SA17A10A | TKT |
| † 8. Aroclor-1262                       | U             |          | µg/kg        | 100                    | 5.0             | 01/10/17                     | PS17A10B                  | 01/10/17        | SA17A10A | TKT |
| † 9. Aroclor-1268                       | U             |          | µg/kg        | 100                    | 5.0             | 01/10/17                     | PS17A10B                  | 01/10/17        | SA17A10A | TKT |

|   |  |   |   |
|---|--|---|---|
| 1914 Holloway Drive<br>11766 E. Grand River<br>8660 S. Mackinaw Trail | Holt, MI 48842<br>Brighton, MI 48116<br>Cadillac, MI 49601 | T: (517) 699-0345<br>T: (810) 220-3300<br>T: (231) 775-8368 | F: (517) 699-0388<br>F: (810) 220-3311<br>F: (231) 775-8584 |
|---|--|---|---|

**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.
- B:** The analyte was detected in the associated method blank.
- E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
- J:** The concentration is an estimated value.
- M:** Modified Method
- U:** The analyte was not detected at or above the reporting limit.
- X:** Matrix Interference has resulted in a raised reporting limit or distorted result.
- W:** Results reported on a wet-weight basis.
- \***: Value reported is outside QC limits

**Exception Summary:**

- G-** : Recovery of the associated Surrogate Compound exceeds the lower control limit. Results may be biased low.



Accreditation Number(s):

**T104704518-16-5 (TX)**



## Analytical Laboratory

|                               |                               |
|-------------------------------|-------------------------------|
| <b>1914 Holloway Drive</b>    | <b>8660 S. Mackinaw Trail</b> |
| <b>Holt, MI 48842</b>         | <b>Cadillac, MI 49601</b>     |
| <b>Phone: 517 699 0345</b>    | <b>Phone: 231 775 8368</b>    |
| <b>Fax: 517 699 0388</b>      | <b>Fax: 231 775 8584</b>      |
| <b>email: lab@fiberlec.us</b> |                               |

**Industrial Hygiene Services, Inc.**

**1914 Holloway Drive  
Holt, MI 48842**  
**Phone: 517 699 0345**  
**Fax: 517 699 0382**  
**email: asbestos@fiberlec.us**

**Geoprobe  
11766 E. Grand River  
Brighton, MI 48116  
Phone: 810 220 3300  
Fax: 810 220 3311**

Chain of Custody #  
**135185**  
PAGE 1 of 1

|                              |                          |        |                 |                          |                                    |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
|------------------------------|--------------------------|--------|-----------------|--------------------------|------------------------------------|-----------------|--------------|----------|--------------------------|-------------------------------------|-------------------------------------|--|--------|------------------|----------------------------------|--|--|
| Client Name:                 | Envirologic Technologies |        |                 |                          | MATRIX (SEE RIGHT CORNER FOR CODE) | PARAMETERS      |              |          |                          | Turnaround                          | Matrix Code                         |  |        |                  | Deliverables                     |  |  |
| Contact Person:              | Dave Stegink             |        |                 |                          |                                    | # OF CONTAINERS |              |          |                          |                                     | 24 hour RUSH<br>(surcharge applies) | <input checked="" type="checkbox"/>            | S Soil | GW Ground Water  | <input type="checkbox"/> Level 2 |  |  |
| Project Name/ Number:        | KCBRA / 160362           |        |                 |                          |                                    |                 |              |          |                          |                                     | 48 hour RUSH (surcharge<br>applies) | <input type="checkbox"/>                       | A Air  | SW Surface Water | <input type="checkbox"/> Level 3 |  |  |
| QUOTE#                       |                          |        |                 |                          |                                    |                 |              |          |                          |                                     | 72 hour RUSH (surcharge<br>applies) | <input type="checkbox"/>                       | O Oil  | WW Waste Water   | <input type="checkbox"/> Level 4 |  |  |
| Purchase Order#              |                          |        |                 |                          |                                    |                 |              |          | Standard (5-7 bus. days) | <input checked="" type="checkbox"/> | P Wipe                              | X Other: Specify                               |        |                  |                                  |  |  |
| Lab Sample #                 | Date                     | Time   | Client Sample # | Client Sample Descriptor | PRESERVED? (Y/N)                   | PNA's (8270)    | PCB's (8082) | Remarks: |                          |                                     |                                     | <input type="checkbox"/> FES Drilling Services |        |                  |                                  |  |  |
|                              | 1/5/17                   | 11:15A | SB-100 e1'      | [REDACTED]               |                                    |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
|                              |                          | 11:27A | SB-101 e1'      | ms/NSD [REDACTED]        |                                    |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
|                              |                          | 11:30A | SB-102 e1'      | [REDACTED]               | SIN +                              |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
|                              |                          | 11:35A | SB-103 e1'      | [REDACTED]               | SIN +                              |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
|                              |                          | 11:55A | SB-104 e1'      | [REDACTED]               | SIN +                              |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
|                              |                          | 12:05P | SB-105 e1'      | [REDACTED]               | SIN +                              |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
|                              |                          | 12:28P | SB-106 e3'      | ms/NSD [REDACTED]        | SIN +                              |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
|                              |                          | 12:40P | SB-107 e3'      | [REDACTED]               | SIN +                              |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
|                              |                          |        | 71-15           | [REDACTED]               | SIN +                              |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
|                              |                          |        | M-2S            | [REDACTED]               | SIN +                              |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
| Comments:                    |                          |        |                 |                          |                                    |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
| Relinquished By:             |                          |        |                 | Date/ Time               | Received By:                       |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
| <i>Robert Walker</i>         |                          |        |                 | 1/6-17 10:18AM           | <i>Mark Halligan</i>               |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
| Relinquished By:             |                          |        |                 | Date/ Time               | Received By:                       |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
| <i>DJ Hickey</i>             |                          |        |                 | 1/6-17 11:30AM           | <i>Mark Halligan</i>               |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
| Relinquished By:             |                          |        |                 | Date/ Time               | Received By Laboratory:            |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
| LAB USE ONLY:                |                          |        |                 |                          |                                    |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
| Fibertec project number:     |                          |        |                 |                          |                                    |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
| Laboratory Tracking:         |                          |        |                 |                          |                                    |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
| Temperature at Receipt:      |                          |        |                 |                          |                                    |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
| 76840                        |                          |        |                 |                          |                                    |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |
| COC Revision: February, 2013 |                          |        |                 |                          |                                    |                 |              |          |                          |                                     |                                     |  |        |                  |                                  |  |  |

74840

COC Revision: February, 2013

1,80c

**TERMS & CONDITIONS ON BACK**

**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Mass Spectrometry (Semivolatiles)**  
**Soil/Solid**

Batch ID: PS17A09B  
Page: 1 of 1  
Date: 01/13/17

Preparation Batch: PS17A09B Preparation Date: 01/09/17

| Parameter                  | Method Blank (MB) |             |   | Laboratory Control Sample (LCS) |                |           |                |   | LCS Duplicate (LCD) |          |          | Run Code |      |       |     |
|----------------------------|-------------------|-------------|---|---------------------------------|----------------|-----------|----------------|---|---------------------|----------|----------|----------|------|-------|-----|
|                            | Result<br>µg/kg   | RL<br>µg/kg | Q | Result<br>µg/kg                 | Spike<br>µg/kg | Rec.<br>% | LCL - UCL<br>% | Q | Rec.<br>%           | RPD<br>% | UCL<br>% | Q        | MB   | LCS   | LCD |
| 1. Acenaphthene            | U                 | 330         |   | 2,896                           | 5,333          | 54        | 50 - 114       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 2. Acenaphthylene          | U                 | 330         |   | 3,185                           | 5,333          | 60        | 53 - 115       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 3. Anthracene              | U                 | 330         |   | 3,078                           | 5,333          | 58        | 48 - 119       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 4. Benzo(a)anthracene      | U                 | 330         |   | 3,392                           | 5,333          | 64        | 56 - 120       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 5. Benzo(a)pyrene          | U                 | 330         |   | 3,898                           | 5,333          | 73        | 57 - 122       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 6. Benzo(b)fluoranthene    | U                 | 330         |   | 3,690                           | 5,333          | 69        | 50 - 131       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 7. Benzo(ghi)perylene      | U                 | 330         |   | 3,725                           | 5,333          | 70        | 41 - 132       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 8. Benzo(k)fluoranthene    | U                 | 330         |   | 3,736                           | 5,333          | 70        | 39 - 137       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 9. Chrysene                | U                 | 330         |   | 3,489                           | 5,333          | 65        | 53 - 124       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 10. Dibenz(a,h)anthracene  | U                 | 330         |   | 3,995                           | 5,333          | 75        | 53 - 126       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 11. Fluoranthene           | U                 | 330         |   | 3,776                           | 5,333          | 71        | 48 - 135       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 12. Fluorene               | U                 | 330         |   | 3,337                           | 5,333          | 63        | 49 - 126       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 13. Indeno(1,2,3-cd)pyrene | U                 | 330         |   | 3,998                           | 5,333          | 75        | 51 - 132       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 14. Indeno(1,2,3-cd)pyrene | U                 | 330         |   | 4,565                           | 5,333          | 86        | 51 - 132       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 15. 2-Methylnaphthalene    | U                 | 330         |   | 3,347                           | 5,333          | 63        | 46 - 105       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 16. Naphthalene            | U                 | 330         |   | 3,175                           | 5,333          | 60        | 53 - 110       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 17. Phenanthrene           | U                 | 330         |   | 3,202                           | 5,333          | 60        | 53 - 119       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 18. Pyrene                 | U                 | 330         |   | 3,453                           | 5,333          | 65        | 55 - 127       |   |                     |          |          |          | MB-1 | LCS-1 |     |

| System Monitoring Compounds<br>(Surrogates): | Method Blank (MB) |                |           | Laboratory Control Sample (LCS) |                |           |                |   | LCS Duplicate (LCD) |          |          | Run Code |      |       |     |
|--|-------------------|----------------|-----------|---------------------------------|----------------|-----------|----------------|---|---------------------|----------|----------|----------|------|-------|-----|
|  | Result<br>µg/kg   | Spike<br>µg/kg | Rec.<br>% | Result<br>µg/kg                 | Spike<br>µg/kg | Rec.<br>% | LCL - UCL<br>% | Q | Rec.<br>%           | RPD<br>% | UCL<br>% | Q        | MB   | LCS   | LCD |
| 1. 2-Fluorobiphenyl(S)                       | 3,295             | 5,333          | 62        | 2,815                           | 5,333          | 53        | 49 - 115       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 2. 2-Fluorobiphenyl(S)                       | 3,295             | 5,333          | 62        | 2,815                           | 5,333          | 53        | 49 - 115       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 3. 4-Terphenyl-d14(S)                        | 3,831             | 5,333          | 72        | 3,202                           | 5,333          | 60        | 48 - 117       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 4. 4-Terphenyl-d14(S)                        | 3,831             | 5,333          | 72        | 3,202                           | 5,333          | 60        | 48 - 117       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 5. 1-Fluoronaphthalene(S)                    | 3,155             | 5,333          | 59        | 2,786                           | 5,333          | 52        | 46 - 114       |   |                     |          |          |          | MB-1 | LCS-1 |     |
| 6. 1-Fluoronaphthalene(S)                    | 3,155             | 5,333          | 59        | 2,786                           | 5,333          | 52        | 46 - 114       |   |                     |          |          |          | MB-1 | LCS-1 |     |

**Definitions/ Qualifiers:**

**U:** The analyte was not detected at or above the Reporting Limit (RL).  
**\*\*:** Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

|       |          |                |
|-------|----------|----------------|
| MB-1  | S617A09B | 01/09/17 14:50 |
| LCS-1 | S617A09B | 01/09/17 15:33 |

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

By Emily Kennedy at 4:18 PM, Jan 13, 2017

**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Electron Capture Detector**  
**Soil/Solid**

Batch ID: PS17A10B  
 Page: 1 of 1  
 Date: 01/13/17

Preparation Batch: PS17A10B Preparation Date: 01/10/17

| Parameter                                    | Method Blank (MB) |                |           | Laboratory Control Sample (LCS) |                |           |                |   |           | LCS Duplicate (LCD) |          |   | Run Code |       |     |
|--|-------------------|----------------|-----------|---------------------------------|----------------|-----------|----------------|---|-----------|---------------------|----------|---|----------|-------|-----|
|  | Result<br>µg/kg   | RL<br>µg/kg    | Q         | Result<br>µg/kg                 | Spike<br>µg/kg | Rec.<br>% | LCL - UCL<br>% | Q | Rec.<br>% | RPD<br>%            | UCL<br>% | Q | MB       | LCS   | LCD |
| 1. Aroclor-1016                              | U                 | 100            |           | 607                             | 667            | 91        | 60 - 120       |   |           |                     |          |   | MB-2     | LCS-2 |     |
| 2. Aroclor-1260                              | U                 | 100            |           | 780                             | 667            | 117       | 60 - 120       |   |           |                     |          |   | MB-2     | LCS-2 |     |
| System Monitoring Compounds<br>(Surrogates): | Method Blank (MB) |                |           | Laboratory Control Sample (LCS) |                |           |                |   |           | LCS Duplicate (LCD) |          |   | Run Code |       |     |
|  | Result<br>µg/kg   | Spike<br>µg/kg | Rec.<br>% | Result<br>µg/kg                 | Spike<br>µg/kg | Rec.<br>% | LCL - UCL<br>% | Q | Rec.<br>% | RPD<br>%            | UCL<br>% | Q | MB       | LCS   | LCD |
| 1. Decachlorobiphenyl-PCB(S)                 | 65.9              | 66.7           | 99        | 76.0                            | 66.7           | 114       | 40 - 143       |   |           |                     |          |   | MB-2     | LCS-2 |     |
| 2. 2,4,5,6-Tetrachloro-m-xylene-PCB(S)       | 53.5              | 66.7           | 80        | 51.2                            | 66.7           | 77        | 42 - 133       |   |           |                     |          |   | MB-2     | LCS-2 |     |

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
 \*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

|       |          |                |
|-------|----------|----------------|
| MB-2  | SA17A10A | 01/10/17 16:25 |
| LCS-2 | SA17A10A | 01/10/17 16:44 |

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

By Emily Kennedy at 4:18 PM, Jan 13, 2017

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